

PATENT

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AIR CONDITIONING SYSTEMS FOR VEHICLES, VEHICLES
COMPRISING SUCH AIR CONDITIONING SYSTEMS, AND METHODS
FOR DRIVING HYBRID COMPRESSORS OF SUCH AIR CONDITIONING SYSTEMS

ABSTRACT OF THE DISCLOSURE

A method for driving a hybrid compressor of an air conditioning system of a vehicle is provided. The vehicle includes a first drive source, and the air conditioning system includes an evaporator. Moreover, the hybrid compressor includes a second drive source, and the hybrid compressor is driven by the first drive source via an electromagnetic clutch or the second drive source, or combination thereof. The method includes the steps of engaging the electromagnetic clutch, detecting a temperature of air dispensed from the evaporator, and disengaging the electromagnetic clutch when the temperature of the air is equal to a predetermined temperature. The method also includes the step of activating the second drive source. Specifically the step of disengaging the electromagnetic clutch when the temperature of the air is equal to the predetermined temperature and the step of activating the second drive source is performed simultaneously or substantially simultaneously.